

2021 Annual Solid Waste Report for CY2020

Commonwealth of Virginia

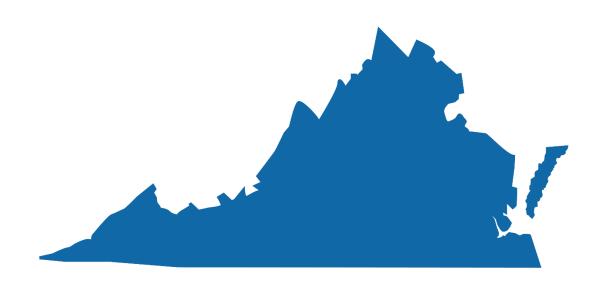


Table of Contents

| EXE | CUTIVE SUMMARY | i |
|------------|---|----|
| l. | Introduction | 1 |
| II. | Reporting Procedures | 1 |
| III. | Receipt of Assessment Reports | 2 |
| IV. | Discussion of Reported Waste Management Activities and Capacity Information | 2 |
| V. | Reports of Economic Benefits | 3 |
| VI. | Waste Diversion and Recycling | |
| <u>Tab</u> | oles: | |
| | ole 1 – Solid Waste Managed in Virginia for All Reporting Facilities in Tons – 2020 | |
| Tab | le 2 – Jurisdiction of Origin of Waste Received in Tons – 2020 | 5 |
| Tab | ole 3 – Solid Waste Managed by MSW (Sanitary) Landfills in Tons – 2020 | 6 |
| Tab | ole 4 – Capacity and Remaining Life for MSW (Sanitary) Landfills – 2020 | 7 |
| Tab | ole 5 – Solid Waste Managed by CDD Landfills in Tons – 2020 | 9 |
| Tab | le 6 – Capacity and Remaining Life for CDD Landfills – 2020 | 10 |
| Tab | ole 7 – Solid Waste Managed by Non-Captive Industrial Landfills in Tons – 2020 | 11 |
| Tab | ole 8 – Capacity and Remaining Life for Non-Captive Industrial Landfills – 2020 | 11 |
| Tab | ole 9 – Solid Waste Managed by Waste to Energy Incinerators in Tons – 2020 | 12 |
| Tab | ole 10 – List of Reporting Incinerators – 2020 | 12 |
| Tab | ole 11 – Solid Waste Managed by Transfer Stations in Tons – 2020 | 13 |
| Tab | ole 12 – List of Reporting Transfer Stations – 2020 | 14 |
| Tab | ole 13 – Solid Waste Managed by Material Recovery Facilities (MRFs) in Tons – 2020 | 16 |
| Tab | ole 14 – List of Reporting MRFs – 2020 | 17 |
| Tab | ole 15 – Summary Table of SW Managed by Facility Type in Tons – 2020 | 19 |
| Tab | ole 16 – List of Reporting Compost Facilities – 2020 | 20 |
| Tab | ole 17 – List of Reporting RMW Facilities – 2020 | 20 |
| Tab | ole 18 – Methods of Solid Waste Management (in Tons) – 2020 | 21 |
| Tab | ole 19 – Composition of the Solid Waste Stream in Tons – 2020 | 21 |
| Tab | ole 20 – Tons Recycled or Diverted from Solid Waste Facilities - 2020 | 22 |
| | ures: | |
| | ure 1 – Total Solid Waste Received from 2012 through 2020 | |
| Figu | ure 2 – Municipal Solid Waste Received from 2012 through 2020 | 24 |
| | achments: | |
| Atta | achment 1 – SWIA Reporting Table (Form DEQ 50-25) | 25 |

Solid Waste Managed in Virginia During Calendar Year 2020

EXECUTIVE SUMMARY

Section 10.1-1413.1 of the Code of Virginia requires the Department of Environmental Quality (DEQ) to prepare a report by June 30 of each year describing the amount of solid waste disposed in the Commonwealth during the preceding calendar year. Facilities that have solid waste management permits are required to submit information to DEQ to prepare this report. As of May 19, 2021, 201 permitted facilities provided information on their activities for calendar year 2020 for this report.

Based on the facilities' reports, a total of 22,505,326.75 tons of solid waste was received at Virginia's permitted solid waste management facilities during calendar year 2020. Of this total, 16,829,472.76 tons originated in the Commonwealth and 5,675,853.99 tons originated from other jurisdictions. The total amount of solid waste received decreased by 0.11% or 24,824.10 tons compared to 2019.

Municipal solid waste (MSW) constituted 14,321,452.83 tons of the total amount of solid waste received during calendar year 2020. Of the total MSW received, 10,251,111.06 tons originated in the Commonwealth and 4,070,341.77 tons originated from other jurisdictions.

Five jurisdictions accounted for 97.20% of all waste received from out-of-state sources: Maryland (42.72%); New York (16.71%); New Jersey (16.47%); Washington, D.C. (15.14%); and North Carolina (6.16%).

During calendar year 2020, the total solid waste received from out-of-state decreased by 1.87%. MSW received from out-of-state decreased by 3.64% compared to 2019 amounts. Construction/demolition/debris (CDD) increased by 9.10% and industrial waste increased by 7.56% compared to 2019 amounts. For waste originating in Virginia during the same period, the total solid waste and MSW received increased by 0.50% and 2.08% respectively compared to 2019 amounts. CDD waste and industrial waste received decreased by 2.02% and 11.13% respectively compared to 2019.

Of the solid waste managed in Virginia during the year, 72.38% or 13,668,094.82 tons were landfilled onsite, 11.84% or 2,236,485.71 tons were incinerated onsite, and the rest was managed by other means (see Table 18). Of all solid waste received at Virginia facilities during the year, 63.64% was MSW, 19.28% was CDD waste, 6.03% was industrial waste and the remainder was other types of waste (see Table 19).

Permitted solid waste management facilities reported that 8.67% of the waste they managed was diverted from disposal by recycling or mulching; 1.10% of the total waste managed was composted.

At the option of the facility owner, Virginia Code § 10.1-1413.1 provides that the data collected may include an accounting of the facility's economic benefits to the locality where the facility is located. No facilities provided such information for calendar year 2020.

I. Introduction

This report has been prepared in accordance with Virginia Code § 10.1-1413.1, which requires DEQ to prepare a report by June 30 of each year describing the amount of solid waste disposed of in the Commonwealth during the preceding calendar year. All permitted facilities (except for captive waste management facilities) that treat, store or dispose of solid waste are required to provide DEQ with information in their possession as is reasonably necessary for DEQ to prepare this report. The requirements for reporting are set forth in the Virginia Administrative Code, 9 VAC 20-81-80.

II. Reporting Procedures

For each category of solid waste, permitted solid waste facilities in Virginia were asked to report the amount of waste that they received, the amount of waste mined¹, the method by which the waste was managed, the jurisdiction where the waste originated, if known, and the facility's remaining capacity. A copy of the reporting table, DEQ Form 50-25, for providing information to DEQ is provided as Attachment 1.

The facilities identified amounts of solid waste by each of the following categories:

- municipal solid waste (MSW)
- construction/demolition/debris (CDD)
- industrial waste
- regulated medical waste (RMW)
- vegetative and yard waste (VW/YW)
- incineration ash
- sludge other than land applied in accordance with Virginia Code 62.1-44.19:3
- tires
- white goods (e.g., refrigerators, washing machines)
- friable asbestos
- petroleum-contaminated soil (PCS)
- other waste

The facilities also reported on each of the following methods of waste management:

- recycled onsite
- composted onsite
- landfilled onsite
- incinerated onsite
- sent offsite to be recycled
- sent offsite to be treated, stored or disposed
- stored onsite at the beginning of the reporting period
- stored onsite at the end of the reporting period
- mulched
- other

¹ Landfill mining is the excavation of previously landfilled materials.

Facilities submit this data online or by paper copy to the appropriate DEQ Regional Office. Facilities may log online at the Virginia Solid Waste Information and Assessment (SWIA) webpage to submit data at https://www.deq.virginia.gov/land-waste/solid-hazardous-waste/solid-waste-information-assessment.

For the facilities that provided information, 3.98% (8 facilities) submitted paper copies and 96.02% (193 facilities) submitted the information online.

This report does not include the waste management activities from captive waste management facilities because they are statutorily exempt from the reporting requirements. A captive facility is one that is located on property owned or controlled by the generator of the waste. Most captive waste management facilities in Virginia are industrial landfills or regulated medical waste facilities. As a result, the reported amounts of industrial waste, regulated medical waste and sludge represent only the portion that is managed in off-site facilities. In addition, this report does not reflect tires managed under the Waste Tire Trust Fund at facilities that do not require a permit.

III. Receipt of Assessment Reports

By regulation, facilities must submit their reportable data by March 31 each year. Facilities are required to submit a separate reporting table for each jurisdiction from which they received waste during the prior year. Information from reporting tables received on or before May 19, 2020, has been included in this report. For 2020, 201 permitted facilities reported their activities. These facilities submitted 332 separate reporting tables, representing waste received from 26 states and jurisdictions (including Virginia and Washington, D.C.). Last year, 205 facilities reported their activities for 2019.

IV. Discussion of Reported Waste Management Activities and Capacity Information

Table 1 shows how the total solid waste received was managed by all facility types.² Table 2 lists the jurisdiction of origin of waste. Tables 3, 5, and 7 show how Municipal Solid Waste Sanitary Landfills, Construction/Demolition/Debris Landfills, and Industrial Landfills managed solid waste.³

Tables 9-17 show how other facility types (Incinerators, Transfer Stations, Material Recovery Facilities (MRF), Composters, and Regulated Medical Waste) managed the waste they received and a list of submitting facilities. Table 18 shows how the total waste stream was managed and Table 19 shows the composition of the total waste stream.

Permitted facilities that treat, store or dispose of solid waste are required to report the available capacity, expected life and current disposal rates. The reported remaining capacity and life, and a list of

² When referring to information from Table 1, "waste received" refers to information from the first column, and "waste managed" refers to information from the remaining columns on Form DEQ 50-25 except "mined materials" or as noted. The amount of waste "received" for each type of waste may not match the sum of the reported amounts identified for each method of waste management. This reflects information as submitted by facilities in the reporting tables. In particular, incinerators may properly include the ash that they generate as waste that is "sent offsite," and not include it as waste that is "received" at that facility.

³ Some columns and rows found in Table 1 do not appear in some of these tables. Rows and columns that do not have reported data were not used by any of the reporting entities; *i.e.* MSW Landfills do not incinerate waste so the column is not included; MSW landfills do not accept regulated medical waste so the row is not included.

submitting facilities are in Tables 4, 6, and 8.⁴ The calculated statewide remaining years of landfill capacity do not account for regional variations, population changes, changes in waste generation, or the future closing of disposal units. Also, calculations do not include facilities that have not been built and are not accepting waste for which permits may have been issued.

Figure 1 compares the total amount of waste received from 2012 through 2020 at facilities from Virginia and out-of-state jurisdictions. Figure 2 compares municipal solid waste received from 2012 through 2020 from Virginia and out-of-state sources.

V. Reports of Economic Benefits

At the option of the facility owner, Virginia Code § 10.1-1413.1 provides that the data collected may include an accounting of the facility's economic benefits to the locality where the facility is located. This may include the value of disposal and recycling facilities provided to the locality at no cost or reduced cost, direct employment associated with the facility, and other economic benefits resulting from the facility during the preceding calendar year. No facilities provided such information for 2020.

VI. Waste Diversion and Recycling

SWIA data is collected from solid waste permitted facilities. Facilities submit the total tonnage received and how the amounts were managed (landfilled, mined, recycled onsite, recycled offsite, mulched, incinerated, other, composted, or stored). Permitted solid waste management facilities reported that 8.67% (1,637,515.14 tons) of the total waste they managed was diverted from disposal by recycling or mulching. Facilities composted 1.10% (207,332.88 tons) of the total waste managed. Table 20 shows for each SWIA category of waste the total amount of Virginia and out-of-state waste managed, total amount diverted and how the material was managed. In addition, Tables 3, 5, 7, 9, 11, 13, and 15 show how the various facility types managed the waste types.

Most recycling occurs at facilities other than permitted waste management facilities. Local governments provide more complete information on the recycling of waste generated in Virginia. For more detailed information about recycling rates in Virginia see Calendar Year 2019 Virginia Annual Recycling Rate Report: https://www.deq.virginia.gov/land-waste/recycling/recycling-data/recycling-rate-report. The annual recycling report for calendar year 2020 will be issued later this year.

⁴ Facilities report available capacity in cubic yards. The available capacity is estimated using the following conversion factors: 1,000 lbs. of MSW = 1 cu. yd.; 1,200 lbs. of CDD waste = 1 cu. yd.; and 1,000 lbs. of industrial waste = 1 cu. yd. The available capacity for individual facilities may vary, depending on factors such as a facility's compaction rate and

use of daily cover materials.

Table 1 – Solid Waste Managed in Virginia for All Reporting Facilities in Tons – 2020

| Waste Type | Total Waste Received ⁵ | Mined Materials | Landfilled Onsite | Recycled Onsite ⁶ | Composted Onsite | Incinerated Onsite | Mulched Onsite | Other Onsite ⁷ | Recycled Offsite | Treated, Stored, Disposed Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|--------------------------------|--------------------------------------|--------------------|----------------------|---------------------------------|---------------------|-----------------------|-------------------|------------------------------|---------------------|--|---|---------------------------------------|
| Municipal Solid Waste | 14,321,452.83 | 180,253.34 | 8,516,968.03 | 12,588.40 | 1,210.70 | 2,222,736.18 | 0.00 | 169,669.00 | 115,400.65 | 3,458,989.68 | 18,940.29 | 19,539.86 |
| Construction/Demolition/Debris | 4,339,878.76 | 0.00 | 2,771,212.24 | 387,159.67 | 0.00 | 0.00 | 33,882.89 | 21,856.02 | 84,414.55 | 1,091,058.59 | 570,874.36 | 521,169.17 |
| Industrial Waste | 1,357,465.02 | 0.00 | 1,208,101.58 | 0.00 | 39,234.00 | 13,749.53 | 0.00 | 18,644.42 | 6,521.84 | 71,213.65 | 0.00 | 0.00 |
| Other Waste | 722,840.04 | 0.00 | 281,799.31 | 43,455.20 | 19,502.49 | 0.00 | 0.00 | 53,863.09 | 272,799.73 | 94,656.15 | 9,651.15 | 14,999.22 |
| Incineration Ash | 595,245.10 | 0.00 | 445,752.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 212,322.90 | 491,168.02 | 64,682.00 | 62,477.00 |
| Vegetative/Yard Waste | 461,579.76 | 0.00 | 13,399.13 | 3,720.16 | 128,531.02 | 0.00 | 265,370.75 | 25,135.74 | 31,476.37 | 34,537.85 | 192,101.55 | 151,509.89 |
| Petroleum Contaminated Soil | 330,491.43 | 0.00 | 215,596.71 | 0.00 | 0.00 | 0.00 | 0.00 | 57,739.83 | 56,805.00 | 140.89 | 7,521.00 | 7,730.00 |
| Sludge | 226,678.46 | 0.00 | 206,290.81 | 0.00 | 18,854.67 | 0.00 | 0.00 | 0.00 | 0.00 | 1,532.98 | 0.00 | 0.00 |
| Tires | 100,220.56 | 0.00 | 524.55 | 44,095.73 | 0.00 | 0.00 | 0.00 | 3,998.46 | 38,163.25 | 12,307.93 | 3,948.79 | 4,547.70 |
| White Goods | 29,454.99 | 0.00 | 0.44 | 919.82 | 0.00 | 0.00 | 0.00 | 0.00 | 28,418.23 | 0.84 | 383.46 | 499.12 |
| Regulated Medical Waste | 11,567.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11,570.58 | 3.00 | 0.00 |
| Friable Asbestos | 8,452.22 | 0.00 | 8,449.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.80 | 4.50 | 0.00 |
| Total for 2020 | 22,505,326.75 | 180,253.34 | 13,668,094.82 | 491,938.98 | 207,332.88 | 2,236,485.71 | 299,253.64 | 350,906.56 | 846,322.52 | 5,267,183.96 | 868,110.10 | 782,471.96 |
| Total for 2019 | 22,530,150.85 | 166,522.67 | 13,814,420.75 | 337,729.35 | 199,461.85 | 2,201,817.23 | 222,287.79 | 379,438.01 | 855,837.44 | 5,109,971.58 | 733,090.71 | 857,579.62 |

⁵ The amount of "Total Waste Received" and "Stored Onsite at Beginning of Year" may not precisely match the sum of the reported amounts for the remaining columns (i.e., each method of managing the waste). This difference reflects information submitted in the reporting tables. In particular, incineration ash generated by an energy recovery facility or incinerator may be listed as "sent offsite to be treated, stored, or disposed" even though it was not received as ash at that facility. The total waste managed may be greater than the waste received due to ash generated at a facility. Vegetative/Yard Waste may be composted to produce a product that is not managed as a waste.

⁶ The majority of recycling takes place at facilities that do not require a permit from the Department and were not required to submit data for this report. Therefore, the amounts shown in this column represent a substantial underestimate of the true recycling rate in the Commonwealth. Table 20 provides more information. The annual recycling rate report for calendar year 2020 will be issued later this year.

⁷ "Other Onsite" methods of management may include steam sterilization of medical waste, approved use of shredded tires, and thermal treatment of petroleum contaminated soils, among others.

Table 2 – Jurisdiction of Origin of Waste Received in Tons – 2020

| State or Territory | CDD | Friable Asbestos | Incineration Ash | Industrial | MSW | Other | PCS | RMW | Sludge | Tires | VW/YW | White Goods | Total Received |
|---------------------------|--------------|---------------------|---------------------|--------------|---------------|------------|------------|-----------|------------|------------|------------|----------------|-------------------|
| AL - Alabama | 0.00 | 0.00 | 0.00 | 262.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 262.60 |
| AZ - Arizona | 0.00 | 0.00 | 0.00 | 0.00 | 25.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.00 |
| CN - Canada | 0.00 | 0.00 | 0.00 | 0.00 | 32.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.00 |
| CT - Connecticut | 0.00 | 0.00 | 0.00 | 1,038.19 | 50,309.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51,347.49 |
| DC - District of Columbia | 148,049.32 | 434.86 | 0.00 | 40,050.85 | 618,839.70 | 0.00 | 51,682.97 | 0.00 | 0.00 | 0.00 | 25.00 | 0.00 | 859,082.70 |
| DE - Delaware | 2.29 | 71.37 | 0.00 | 880.58 | 15,326.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16,280.64 |
| GA - Georgia | 0.00 | 0.00 | 0.00 | 204.67 | 153.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 357.82 |
| IL - Illinois | 0.00 | 0.00 | 0.00 | 0.00 | 14.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.00 |
| IN - Indiana | 0.00 | 0.00 | 0.00 | 2.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.50 |
| MA - Massachusetts | 0.00 | 0.00 | 0.00 | 8.51 | 30,927.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 30,936.33 |
| MD - Maryland | 315,183.18 | 1,727.54 | 161,185.48 | 221,210.96 | 1,519,980.22 | 160,201.24 | 22,394.01 | 0.00 | 22,559.39 | 2.56 | 24.35 | 0.00 | 2,424,468.93 |
| MI - Michigan | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| MS - Mississippi | 0.00 | 0.00 | 0.00 | 166.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 166.01 |
| NC - North Carolina | 1,556.09 | 28.89 | 0.00 | 165,044.73 | 149,831.96 | 18,152.03 | 13,796.99 | 1,147.58 | 0.00 | 0.00 | 0.00 | 0.00 | 349,558.27 |
| NH - New Hampshire | 0.00 | 0.00 | 0.00 | 92.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 92.29 |
| NJ - New Jersey | 31,702.93 | 0.00 | 0.00 | 199,372.41 | 703,688.29 | 0.00 | 136.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 934,899.71 |
| NY - New York | 0.00 | 108.73 | 0.00 | 676.20 | 947,914.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 948,698.96 |
| OH - Ohio | 0.00 | 0.00 | 0.00 | 261.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 261.80 |
| PA - Pennsylvania | 120.54 | 781.70 | 0.00 | 10,064.01 | 10,713.31 | 0.00 | 2,309.39 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23,988.95 |
| RI - Rhode Island | 0.00 | 0.00 | 0.00 | 0.00 | 332.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 332.30 |
| SC - South Carolina | 0.00 | 0.00 | 0.00 | 1,614.18 | 143.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,757.36 |
| TN - Tennessee | 6,096.04 | 0.00 | 0.00 | 3,322.50 | 17,205.35 | 2.40 | 0.00 | 0.00 | 59.31 | 13.74 | 5.51 | 0.00 | 26,704.85 |
| VT - Vermont | 0.00 | 97.57 | 0.00 | 290.46 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 388.03 |
| WI - Wisconsin | 0.00 | 0.00 | 0.00 | 10.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.40 |
| WV - West Virginia | 304.10 | 278.63 | 0.00 | 0.50 | 4,904.76 | 0.00 | 52.60 | 1.10 | 642.36 | 0.00 | 0.00 | 0.00 | 6,184.05 |
| 2020 Total Other States | 503,014.49 | 3,529.29 | 161,185.48 | 644,574.35 | 4,070,341.77 | 178,355.67 | 90,372.04 | 1,148.68 | 23,261.06 | 16.30 | 54.86 | 0.00 | 5,675,853.99 |
| 2020 Total Virginia | 3,836,864.27 | 4,922.93 | 434,059.62 | 712,890.67 | 10,251,111.06 | 544,484.37 | 240,119.39 | 10,418.90 | 203,417.40 | 100,204.26 | 461,524.90 | 29,454.99 | 16,829,472.76 |
| 2020 Total All States | 4,339,878.76 | 8,452.22 | 595,245.10 | 1,357,465.02 | 14,321,452.83 | 722,840.04 | 330,491.43 | 11,567.58 | 226,678.46 | 100,220.56 | 461,579.76 | 29,454.99 | 22,505,326.75 |
| 2019 Total Other States | 461,051.19 | 2,359.86 | 197,644.01 | 599,287.85 | 4,224,130.24 | 207,848.28 | 48,522.43 | 128.44 | 42,917.83 | 174.33 | 192.04 | 0.00 | 5,784,256.50 |
| 2019 Total Virginia | 3,916,126.38 | 3,576.49 | 408,590.17 | 802,185.29 | 10,042,401.97 | 586,739.18 | 201,719.60 | 5,231.87 | 207,289.08 | 109,738.09 | 434,635.78 | 27,660.45 | 16,745,894.34 |
| 2019 Total All States | 4,377,177.57 | 5,936.35 | 606,234.18 | 1,401,473.14 | 14,266,532.21 | 794,587.47 | 250,242.03 | 5,360.31 | 250,206.91 | 109,912.42 | 434,827.82 | 27,660.45 | 22,530,150.85 |

Table 3 – Solid Waste Managed by MSW (Sanitary) Landfills in Tons – 2020

| Waste Type | Total Waste Received | Mined Materials | Landfilled Onsite | Recycled Onsite | Composted Onsite | Mulched Onsite | Other Onsite | Recycled Offsite | Treated, Stored, Disposed Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|--------------------------------|-------------------------|--------------------|----------------------|--------------------|---------------------|-------------------|-----------------|---------------------|--|------------------------------------|------------------------------------|
| Municipal Solid Waste | 8,613,045.91 | 180,253.34 | 8,516,968.03 | 2,589.71 | 0.00 | 0.00 | 169,669.00 | 14,867.52 | 89,205.06 | 0.07 | 0.00 |
| Construction/Demolition/Debris | 1,088,904.10 | 0.00 | 1,004,370.07 | 28,303.62 | 0.00 | 1,137.00 | 21,856.02 | 0.00 | 35,705.17 | 13,133.47 | 10,665.70 |
| Industrial Waste | 992,709.04 | 0.00 | 974,064.62 | 0.00 | 0.00 | 0.00 | 18,644.42 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incineration Ash | 445,752.10 | 0.00 | 445,752.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Waste | 372,064.30 | 0.00 | 281,799.31 | 26,011.70 | 0.00 | 0.00 | 52,837.09 | 10,683.97 | 742.23 | 26.00 | 16.00 |
| Petroleum Contaminated Soil | 252,762.06 | 0.00 | 215,596.71 | 0.00 | 0.00 | 0.00 | 37,165.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sludge | 223,727.27 | 0.00 | 204,872.60 | 0.00 | 18,854.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vegetative/Yard Waste | 142,417.85 | 0.00 | 2,545.82 | 3,720.16 | 9,742.84 | 103,327.55 | 20,834.52 | 17,276.79 | 0.00 | 25,427.88 | 10,397.65 |
| White Goods | 17,494.61 | 0.00 | 0.44 | 919.82 | 0.00 | 0.00 | 0.00 | 16,558.26 | 0.00 | 50.99 | 67.08 |
| Tires | 16,779.06 | 0.00 | 376.20 | 666.58 | 0.00 | 0.00 | 3,921.25 | 6,661.46 | 4,686.63 | 1,979.93 | 2,446.87 |
| Friable Asbestos | 8,342.21 | 0.00 | 8,342.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2020 MSW Total | 12,173,998.51 | 180,253.34 | 11,654,688.11 | 62,211.59 | 28,597.51 | 104,464.55 | 324,927.65 | 66,048.00 | 130,339.09 | 40,618.34 | 23,593.30 |
| 2019 MSW Total | 12,503,616.68 | 166,522.67 | 12,026,951.61 | 12,600.69 | 26,376.51 | 85,297.80 | 315,727.48 | 65,473.23 | 137,007.49 | 39,912.79 | 40,618.34 |

Table 4 – Capacity and Remaining Life for MSW (Sanitary) Landfills – 2020

| | Facility Name | Permit | Capacity in Tons as of 12/2020 | Landfilled in 2020 Tons | Expected Remaining Permitted Life (Years) | Region |
|----|--|--------|--------------------------------------|----------------------------|--|--------|
| 1 | Accomack County Northern Landfill | SWP461 | 1,225,242.00 | 36,381.99 | 38.4 | TRO |
| 2 | Amherst County Landfill Permit Number 563 | SWP563 | 980,086.50 | 30,540.63 | 44.5 | BRRO |
| 3 | Atlantic Waste Disposal Inc | SWP562 | 43,943,186.00 | 1,191,495.97 | 54 | PRO |
| 4 | Augusta Regional Landfill | SWP585 | 4,142,086.00 | 146,971.11 | 27 | VRO |
| 5 | Battle Creek Landfill | SWP579 | 2,599,036.00 | 62,759.00 | 55 | VRO |
| 6 | Bedford County - Sanitary Landfill | SWP560 | 31,458.50 | 40,070.00 | 0.8 | BRRO |
| 7 | Bedford Town - Hylton Site | SWP569 | 0.00 | 9.26 | 0 | BRRO |
| 8 | BFI Old Dominion Landfill | SWP553 | 6,606,501.50 | 494,130.79 | 19 | PRO |
| 9 | Blue Ridge Resource Authority | SWP075 | 1,831,725.00 | 45,114.21 | 44 | VRO |
| 10 | Botetourt County Landfill | SWP582 | 6,666.50 | 35,446.00 | 1 | BRRO |
| 11 | Bristol Integrated Solid Waste Management Facility | SWP498 | 0.00 | 0.00 | 0 | SWRO |
| 12 | Bristol Integrated Solid Waste Management Facility | SWP588 | 1,934,009.50 | 106,845.33 | 35 | SWRO |
| 13 | Brunswick Waste Management Facility LLC | SWP583 | 9,569,031.50 | 326,016.77 | 40 | PRO |
| 14 | Carroll Grayson Galax Regional Landfill 2 | SWP605 | 1,434,658.50 | 44,569.30 | 41.3 | SWRO |
| 15 | Charles City County Landfill | SWP531 | 12,026,818.50 | 653,005.24 | 33 | PRO |
| 16 | Corral Farm Waste Management Facility | SWP149 | 0.00 | 0.00 | 0 | NRO |
| 17 | Corral Farm Waste Management Facility | SWP575 | 313,341.50 | 1,450.00 | 157 | NRO |
| 18 | Covington City - Peters Mountain Landfill | SWP594 | 270,250.00 | 12,345.44 | 14 | BRRO |
| 19 | Disposal and Recycling Services of Lunenburg | SWP544 | 1,435,500.00 | 359,841.93 | 5.4 | PRO |
| 20 | Franklin County - Sanitary Landfill | SWP072 | 0.00 | 0.00 | 0 | BRRO |
| 21 | Franklin County - Sanitary Landfill | SWP577 | 2,342,259.50 | 54,963.00 | 44 | BRRO |
| 22 | Frederick County Landfill | SWP529 | 6,100,000.00 | 125,333.46 | 29 | VRO |
| 23 | Greensville County Landfill | SWP405 | 253,340.05 | 25,373.92 | 11.4 | PRO |
| 24 | Interstate 95 Landfill | SWP103 | 3,461,250.50 | 356,319.75 | 33 | NRO |
| 25 | King and Queen Sanitary Landfill | SWP554 | 9,355,269.50 | 664,318.96 | 32.2 | PRO |
| 26 | King George Landfill Incorporated | SWP586 | 15,520,811.50 | 1,549,909.59 | 20 | NRO |
| 27 | Loudoun County Solid Waste Management Facility | SWP001 | 10,407,500.00 | 209,774.12 | 46 | NRO |
| 28 | Louisa County Sanitary Landfill | SWP567 | 267,303.50 | 22,267.15 | 9 | NRO |
| 29 | Maplewood Recycling and Waste Disposal | SWP540 | 15,416,986.00 | 963,718.73 | 125.8 | PRO |
| 30 | Middle Peninsula Landfill and Recycling Facility | SWP572 | 13,227,433.00 | 535,825.62 | 48 | PRO |
| 31 | New River Resource Authority Solid Waste Facility | SWP548 | 5,204,443.00 | 80,663.00 | 30.7 | BRRO |
| 32 | Nottoway County Sanitary Landfill - Blackstone | SWP304 | 256,736.00 | 17,019.00 | 14.2 | PRO |

| 33 | Orange County Sanitary Landfill | SWP566 | 1,660,764.50 | 25,563.00 | 31 | NRO |
|----|--|--------|----------------|---------------|------|------|
| 34 | Pittsylvania Co - Sanitary Landfill ⁸ | SWP571 | 872,682.50 | 71,395.45 | 16 | BRRO |
| 35 | Prince Edward County Sanitary Landfill | | 124,058.00 | 29,471.15 | 4.6 | PRO |
| 36 | Prince William County Sanitary Landfill | | 4,854,553.50 | 376,048.00 | 12.8 | NRO |
| 37 | Rappahannock Regional Solid Waste Management Board | SWP589 | 5,576,397.50 | 218,468.41 | 39.5 | NRO |
| 38 | Region 2000 Regional Landfill - Livestock Rd Fac | SWP610 | 1,177,200.00 | 194,199.86 | 7.1 | BRRO |
| 39 | Rockingham County Landfill | SWP062 | 4,185,910.50 | 139,008.13 | 39.7 | VRO |
| 40 | Shenandoah County Landfill - Edinburg | SWP469 | 1,770,436.00 | 48,939.00 | 31 | VRO |
| 41 | Shoosmith Sanitary Landfill | SWP587 | 19,085,000.00 | 923,347.00 | 28 | PRO |
| 42 | Smith Gap Regional Landfill | SWP555 | 4,766,601.00 | 203,258.34 | 33 | BRRO |
| 43 | Spotsylvania County Livingston Sanitary Landfill | SWP547 | 265,173.50 | 138,170.53 | 2.5 | NRO |
| 44 | SPSA - Regional Landfill | SWP417 | 7,114,578.50 | 98,034.92 | 38.9 | TRO |
| 45 | SRPSA - Butcher Creek Sanitary Landfill | SWP598 | 2,243,143.01 | 79,357.99 | 62 | PRO |
| 46 | Tazewell County Landfill | SWP564 | 208,392.00 | 84,189.53 | 3 | SWRO |
| 47 | Tri City Regional Disposal and Recycling Services | SWP228 | 0.00 | 0.00 | 0 | PRO |
| 48 | USA Waste of Virginia Landfills - Bethel | SWP580 | 21,816,740.50 | 771,358.13 | 65 | TRO |
| 49 | Virginia Beach City - Landfill No 2 | SWP398 | 1,725,000.00 | 21,051.00 | 71 | TRO |
| 50 | Wise County Sanitary Landfill | SWP513 | 709,356.00 | 40,348.40 | 19 | SWRO |
| | MSW Landfill Total for 2020 | | 248,318,917.05 | 11,654,688.11 | 21.3 | |
| | MSW Landfill Total for 2019 | | 248,330,202.92 | 12,026,951.61 | 20.6 | |

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⁸ Pittsylvania Co - Sanitary Landfill (SWP571) notified DEQ that the previous capacity numbers reported were based on a single cell (Cell B) and not the Part B permitted capacity. The CY2020 remaining capacity number reflects the Part B permitted capacity.

Table 5 – Solid Waste Managed by CDD Landfills in Tons – 2020

| Waste Type | Total Waste Received | Landfilled Onsite | Recycled Onsite | Mulched Onsite | Recycled Offsite | Treated, Stored, Disposed Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|--------------------------------|-------------------------|----------------------|--------------------|-------------------|---------------------|--|--|------------------------------|
| Construction/Demolition/Debris | 1,895,316.39 | 1,744,996.80 | 91,643.30 | 17,923.00 | 40,264.15 | 1,991.69 | 313,312.54 | 311,809.99 |
| Vegetative/Yard Waste | 19,536.56 | 10,853.31 | 0.00 | 6,750.00 | 0.00 | 0.00 | 299.25 | 2,232.50 |
| Other Waste | 17,088.00 | 0.00 | 17,443.50 | 0.00 | 0.00 | 0.00 | 6,826.00 | 6,470.50 |
| Tires | 173.28 | 148.35 | 0.00 | 0.00 | 24.93 | 0.00 | 3.00 | 3.00 |
| 2020 CDD Total | 1,932,114.23 | 1,755,998.46 | 109,086.80 | 24,673.00 | 40,289.08 | 1,991.69 | 320,440.79 | 320,515.99 |
| 2019 CDD Total | 1,709,371.03 | 1,532,923.65 | 79,533.25 | 20,913.00 | 29,113.81 | 2,756.54 | 276,310.01 | 320,440.79 |

Table 6 – Capacity and Remaining Life for CDD Landfills – 2020

| | Facility Name | Permit | Capacity in Tons as of 12/2020 | Landfilled in 2020 Tons | Expected Remaining Permitted Life (Years) | Region |
|----|--|--------|-----------------------------------|----------------------------|---|--------|
| 1 | 623 Landfill | SWP506 | 9,336,904.34 | 779,725.02 | 15.4 | PRO |
| 2 | Ashcake Road Landfill, Inc. | SWP574 | 552,844.80 | 74,155.20 | 7 | PRO |
| 3 | Centerville Turnpike CDD Landfill | SWP603 | 3,083,011.80 | 278,176.35 | 10.8 | TRO |
| 4 | Country South LLC - CDD Landfill | SWP581 | 1,377,762.43 | 6,370.25 | 237.9 | BRRO |
| 5 | Frederick County Landfill | SWP591 | 1,800,000.00 | 48,627.15 | 16 | VRO |
| 6 | Lorton Construction Landfill | SWP331 | 0.00 | 0.00 | 0 | NRO |
| 7 | Portsmouth City - Craney Island Landfill | SWP041 | 1,871,809.80 | 8,237.00 | 129 | TRO |
| 8 | Potomac CDD Landfill | SWP441 | 593,400.00 | 114,087.18 | 11 | NRO |
| 9 | Rainwater Landfill | SWP327 | 228,246.60 | 13,307.00 | 10 | NRO |
| 10 | Recycled Properties LLC | SWP493 | 1,258,161.00 | 53,666.10 | 17 | TRO |
| 11 | Skinquarter Land CDD Landfill | SWP604 | 4,374,165.00 | 231,715.15 | 20 | PRO |
| 12 | Taylor Road Landfill | SWP270 | 6,710,917.20 | 147,932.00 | 57 | PRO |
| 13 | The East End Landfill | SWP524 | 108,514.52 | 0.00 | 3 | PRO |
| 14 | Thomas Brothers Debris Landfill | SWP445 | 68,400.00 | 0.06 | 8 | BRRO |
| | CDD Landfill Total for 2020 | | 31,364,137.49 | 1,755,998.46 | 17.9 | |
| | CDD Landfill Total for 2019 | | 32,823,184.09 | 1,532,923.65 | 21.4 | |

Table 7 – Solid Waste Managed by Non-Captive Industrial Landfills in Tons – 2020

| Waste Type | Total Waste Received | Landfilled Onsite | Recycled Onsite | Mulched Onsite | Recycled Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|--------------------------------|-------------------------|----------------------|--------------------|-------------------|---------------------|------------------------------------|------------------------------------|
| Industrial Waste | 234,396.88 | 234,036.96 | 0.00 | 0.00 | 359.92 | 0.00 | 0.00 |
| Construction/Demolition/Debris | 22,913.81 | 21,845.37 | 0.00 | 0.00 | 0.00 | 5,950.96 | 7,019.40 |
| Vegetative/Yard Waste | 4,794.10 | 0.00 | 0.00 | 4,794.10 | 0.00 | 0.00 | 0.00 |
| Sludge | 1,418.21 | 1,418.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Friable Asbestos | 107.71 | 107.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tires | 6.26 | 0.00 | 0.00 | 0.00 | 3.26 | 82.00 | 85.00 |
| 2020 Industrial Total | 263,636.97 | 257,408.25 | 0.00 | 4,794.10 | 363.18 | 6,032.96 | 7,104.40 |
| 2019 Industrial Total | 260,161.55 | 254,545.49 | 29.48 | 4,115.31 | 540.66 | 5,102.35 | 6,032.96 |

Table 8 – Capacity and Remaining Life for Non-Captive Industrial Landfills – 2020

| | Facility Name | Permit | Capacity in Tons as of 12/2020 | Landfilled in 2020 Tons | Expected Remaining Permitted Life (Years) | Region |
|---|---|--------|-----------------------------------|----------------------------|--|--------|
| 1 | First Piedmont Corp - Ringgold | SWP065 | 1,635,367.78 | 209,490.05 | 10.1 | BRRO |
| 2 | International Paper LF No 2 - Isle of Wight | SWP504 | 1,658,555.00 | 27,230.00 | 65 | TRO |
| 3 | John C Holland Enterprises Inc | SWP280 | 797,379.25 | 20,688.20 | 46.3 | TRO |
| | Industrial Landfill Total for 2020 | | 4,091,302.03 | 257,408.25 | 15.9 | |
| | Industrial Landfill Total for 2019 | | 4,296,918.36 | 254,545.49 | 16.9 | |

Table 9 – Solid Waste Managed by Waste to Energy Incinerators in Tons – 2020

| Waste Type | Total Waste Received | Incinerated Onsite | Recycled Offsite | Treated, Stored, Disposed Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|------------------------|-------------------------|-----------------------|---------------------|--|------------------------------------|------------------------------------|
| Municipal Solid Waste | 2,305,436.78 | 2,222,736.18 | 14,059.00 | 66,336.60 | 14,429.00 | 16,734.00 |
| Industrial Waste | 13,749.53 | 13,749.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| White Goods | 343.00 | 0.00 | 343.00 | 0.00 | 0.00 | 0.00 |
| Tires | 309.40 | 0.00 | 309.40 | 0.00 | 0.00 | 0.00 |
| Incineration Ash | 0.00 | 0.00 | 156,784.90 | 395,008.02 | 0.00 | 0.00 |
| Other Waste | 0.00 | 0.00 | 48,584.00 | 0.00 | 0.00 | 0.00 |
| 2020 Incinerator Total | 2,319,838.71 | 2,236,485.71 | 220,080.30 | 461,344.62 | 14,429.00 | 16,734.00 |
| 2019 Incinerator Total | 2,272,823.21 | 2,201,817.23 | 124,473.10 | 517,894.54 | 15,396.00 | 14,429.00 |

Table 10 – List of Reporting Incinerators – 2020

| | Permit | Facility Name | Region |
|---|--------|---|--------|
| 1 | PBR173 | US Central Intelligence Agency - George Bush Cntr | NRO |
| 2 | PBR197 | US Department of Defense - Pentagon | NRO |
| 3 | PBR500 | Wheelabrator Portsmouth Inc - Waste to Energy Fac | TRO |
| 4 | PBR545 | Covanta Fairfax Limited Liability Company | NRO |
| 5 | PBR551 | Covanta Alexandria Arlington Limited Liability Co | NRO |
| 6 | SWP297 | Hampton City - NASA Steam Plant | TRO |

Table 11 – Solid Waste Managed by Transfer Stations in Tons – 2020

| Waste Type | Total Waste Received | Composted Onsite | Mulched Onsite | Other Onsite | Recycled Offsite | Treated, Stored, Disposed Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|--------------------------------|-------------------------|---------------------|-------------------|--------------|---------------------|--|--|---------------------------------|
| Municipal Solid Waste | 2,620,060.45 | 0.00 | 0.00 | 0.00 | 13,434.73 | 2,603,012.15 | 166.55 | 237.16 |
| Construction/Demolition/Debris | 197,191.29 | 0.00 | 0.00 | 0.00 | 179.00 | 197,012.29 | 0.00 | 0.00 |
| Vegetative/Yard Waste | 114,308.07 | 0.00 | 78,545.43 | 1,801.22 | 14,153.58 | 18,462.63 | 4,870.27 | 6,215.48 |
| Industrial Waste | 58,308.96 | 0.00 | 0.00 | 0.00 | 36.00 | 58,272.96 | 0.00 | 0.00 |
| Other Waste | 33,885.12 | 0.00 | 0.00 | 1,026.00 | 30,015.56 | 3,165.52 | 321.96 | 0.00 |
| White Goods | 10,638.54 | 0.00 | 0.00 | 0.00 | 10,538.97 | 0.00 | 332.47 | 432.04 |
| Tires | 4,136.19 | 0.00 | 0.00 | 0.00 | 3,454.15 | 688.96 | 7.95 | 1.03 |
| Sludge | 1,532.98 | 0.00 | 0.00 | 0.00 | 0.00 | 1,532.98 | 0.00 | 0.00 |
| Friable Asbestos | 2.30 | 0.00 | 0.00 | 0.00 | 0.00 | 6.80 | 4.50 | 0.00 |
| 2020 TS Total | 3,040,063.90 | 0.00 | 78,545.43 | 2,827.22 | 71,811.99 | 2,882,154.29 | 5,703.70 | 6,885.71 |
| 2019 TS Total | 2,972,706.46 | 10.00 | 57,517.14 | 11,423.24 | 71,876.54 | 2,834,318.55 | 9,868.48 | 5,703.70 |

Table 12 – List of Reporting Transfer Stations – 2020

| 1 | | | _ |
|----|--------|--|------|
| _ | PBR001 | Russell County Solid Waste Transfer Station | SWRO |
| 2 | PBR002 | Cedar Bluff Transfer Station | SWRO |
| 3 | PBR003 | Washington County Solid Waste Landfill | SWRO |
| 4 | PBR004 | Boissevain Transfer Station | SWRO |
| 5 | PBR021 | James City County Transfer Station | TRO |
| 6 | PBR022 | York County Transfer Station | TRO |
| 7 | PBR031 | Bedford County - Transfer Station | BRRO |
| 8 | PBR032 | Patrick Co - Solid Waste Transfer Station | BRRO |
| 9 | PBR033 | Warren County - Transfer Station | VRO |
| 10 | PBR041 | Smyth County Transfer Station | SWRO |
| 11 | PBR044 | Wythe/Bland Solid Waste Transfer Station | SWRO |
| 12 | PBR049 | Dickenson County Transfer Station | SWRO |
| 13 | PBR050 | Floyd County - Transfer Station | BRRO |
| 14 | PBR051 | Nelson County Transfer Station & Landfills | VRO |
| 15 | PBR069 | Westmoreland County of - Montross Transfer Station | PRO |
| 16 | PBR070 | Lee County Solid Waste Transfer Station | SWRO |
| 17 | PBR090 | Accomack County - Southern Landfill | TRO |
| 18 | PBR091 | Waste Management of Virginia - Manassas | NRO |
| 19 | PBR103 | Alleghany County - Transfer Station | BRRO |
| 20 | PBR106 | Buchanan County Transfer Station | SWRO |
| 21 | PBR112 | Accomack County Northern Landfill | TRO |
| 22 | PBR121 | Bristol Integrated Solid Waste Management Facility | SWRO |
| 23 | PBR132 | Ivy Materials Utilization Center | VRO |
| 24 | PBR136 | LCM Corp - Transfer Station | BRRO |
| 25 | PBR140 | Laurel Valley Center- Culpeper County | NRO |
| 26 | PBR149 | Montgomery Regional Solid Waste Authority | BRRO |
| 27 | PBR154 | Madison County Landfill and Transfer Station | NRO |
| 28 | PBR160 | Richmond Transfer Station and Convenience Center | PRO |
| 29 | PBR189 | Hanover County - 301 Solid Waste Facility | PRO |
| 30 | PBR190 | SPSA - Oceana Transfer Station | TRO |
| 31 | PBR191 | SPSA - Landstown Transfer | TRO |
| 32 | PBR192 | SPSA - Franklin Transfer Station | TRO |
| 33 | PBR193 | SPSA - Isle Of Wight Transfer Station | TRO |

| 34 | PBR194 | SPSA - Chesapeake Transfer | TRO |
|----|--------|--|------|
| 35 | PBR195 | SPSA - Norfolk Transfer Station | TRO |
| 36 | PBR196 | First Piedmont Corp - Ringgold | BRRO |
| 37 | PBR501 | Salem Transfer Station | BRRO |
| 38 | PBR508 | Craig County - Transfer Station | BRRO |
| 39 | PBR509 | Greene County Transfer Station | VRO |
| 40 | PBR518 | SPSA - Regional Landfill | TRO |
| 41 | PBR520 | First Piedmont Corp - Martinsville TS | BRRO |
| 42 | PBR524 | Wise County Blackwood Transfer Station | SWRO |
| 43 | PBR529 | Bedford Town - Hylton Site | BRRO |
| 44 | PBR539 | Halifax County Transfer Station Facility | BRRO |
| 45 | PBR540 | Northampton County - Transfer Station | TRO |
| 46 | PBR548 | Scott County Transfer Station | SWRO |
| 47 | PBR555 | Interstate 66 - Solid Waste Management Facility | NRO |
| 48 | PBR561 | Troy Transfer | VRO |
| 49 | PBR591 | Henrico County DPU Springfield Rd Waste Management | PRO |
| 50 | PBR625 | Corral Farm Waste Management Facility | NRO |
| 51 | PBR628 | City of Harrisonburg SW Mgmt Facility - Berry Road | VRO |
| 52 | PBR630 | County Waste - Hanover | PRO |
| 53 | SWP484 | SPSA - Boykins Transfer | TRO |
| 54 | SWP539 | SPSA - Ivor Transfer Station | TRO |
| 55 | SWP546 | Roanoke Valley Resource Authority Transfer Station | BRRO |
| | | | |

Table 13 – Solid Waste Managed by Material Recovery Facilities (MRFs) in Tons – 2020

| Waste Type | Total Waste Received | Recycled Onsite | Mulched Onsite | Other Onsite | Recycled Offsite | Treated, Stored, Disposed Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|--------------------------------|-------------------------|--------------------|-------------------|--------------|---------------------|--|--|---------------------------------|
| Construction/Demolition/Debris | 1,078,989.99 | 188,489.75 | 14,822.89 | 0.00 | 43,971.40 | 885,276.26 | 227,953.39 | 174,383.08 |
| Municipal Solid Waste | 854,885.63 | 9,998.69 | 0.00 | 0.00 | 73,039.40 | 773,622.51 | 4,344.67 | 2,568.70 |
| Other Waste | 291,595.53 | 0.00 | 0.00 | 0.00 | 194,811.60 | 90,748.40 | 2,477.19 | 8,512.72 |
| Incineration Ash | 149,493.00 | 0.00 | 0.00 | 0.00 | 55,538.00 | 96,160.00 | 64,682.00 | 62,477.00 |
| Tires | 78,816.37 | 43,429.15 | 0.00 | 77.21 | 27,710.05 | 6,932.34 | 1,875.91 | 2,011.80 |
| Petroleum Contaminated Soil | 77,729.37 | 0.00 | 0.00 | 20,574.48 | 56,805.00 | 140.89 | 7,521.00 | 7,730.00 |
| Industrial Waste | 19,066.61 | 0.00 | 0.00 | 0.00 | 6,125.92 | 12,940.69 | 0.00 | 0.00 |
| Vegetative/Yard Waste | 5,371.27 | 0.00 | 3,498.54 | 0.00 | 46.00 | 0.00 | 14,063.00 | 15,889.73 |
| White Goods | 978.84 | 0.00 | 0.00 | 0.00 | 978.00 | 0.84 | 0.00 | 0.00 |
| 2020 MRF Total | 2,556,926.61 | 241,917.59 | 18,321.43 | 20,651.69 | 459,025.37 | 1,865,821.93 | 322,917.16 | 273,573.03 |
| 2019 MRF Total | 2,692,239.78 | 182,496.93 | 29,662.79 | 49,422.89 | 574,692.53 | 1,759,440.45 | 216,008.50 | 312,386.68 |

Table 14 – List of Reporting MRFs – 2020

| | Permit | Facility Name | Region |
|----|--------|--|--------|
| 1 | PBR006 | Leesburg Transfer Station | NRO |
| 2 | PBR039 | Virginia Recycling Corporation | PRO |
| 3 | PBR052 | Aqua Clean Environmental of Virginia | PRO |
| 4 | PBR072 | SPSA - Regional Landfill | TRO |
| 5 | PBR077 | Waste Industries LLC | TRO |
| 6 | PBR093 | Waste Management of Virginia - Sterling | NRO |
| 7 | PBR099 | BFI Fluvanna Transcyclery | VRO |
| 8 | PBR101 | Potomac Landfill Incorporated CDD MRF | NRO |
| 9 | PBR102 | Dulles Materials Recovery Facility | NRO |
| 10 | PBR104 | Blue Ridge Disposal Inc | BRRO |
| 11 | PBR105 | BFI Waste Services LLC | BRRO |
| 12 | PBR107 | Republic Services of Fredericksburg | NRO |
| 13 | PBR111 | Waste Management of Virginia - Merrifield | NRO |
| 14 | PBR116 | Bristol Integrated Solid Waste Management Facility | SWRO |
| 15 | PBR135 | US Navy - Norfolk Naval Shipyard | TRO |
| 16 | PBR155 | Clearfield MMG Inc - Suffolk | TRO |
| 17 | PBR180 | MXI Environmental Services LLC | SWRO |
| 18 | PBR516 | County Waste, LLC | PRO |
| 19 | PBR521 | CFP Limited Liability Corporation | NRO |
| 20 | PBR522 | United Disposal Incorporated | TRO |
| 21 | PBR528 | Corral Farm Waste Management Facility | NRO |
| 22 | PBR531 | Van Der Linde Recycling | VRO |
| 23 | PBR533 | Spivey Disposal LLC | TRO |
| 24 | PBR536 | Broad Run Recycling | NRO |
| 25 | PBR537 | J and E Recycling Materials Recovery Facility | NRO |
| 26 | PBR544 | AMRF Incorporated | NRO |
| 27 | PBR546 | S. B. Cox Recycling Center MRF | PRO |
| 28 | PBR547 | Emanuel Tire of Virginia | BRRO |
| 29 | PBR549 | Green Earth Materials Recovery Facility | VRO |
| 30 | PBR556 | Green Zone Investments LLC | PRO |
| 31 | PBR558 | Recycling and Disposal Solutions of Virginia (RDS) | TRO |
| 32 | PBR559 | Montgomery Regional Solid Waste Authority | BRRO |
| 33 | PBR563 | W and N Material Recovery Facility | NRO |

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Table 15 – Summary Table of Solid Waste Managed by Facility Type in Tons – 2020

| Facility Type | Total Waste Received | Mined Materials | Landfilled Onsite | Recycled Onsite | Composted Onsite | Incinerated Onsite | Mulched Onsite | Other Onsite | Recycled Offsite | Treated, Stored, Disposed Offsite | Stored Onsite at Beginning of Year | Stored Onsite at End of Year |
|--|-------------------------|--------------------|----------------------|--------------------|---------------------|-----------------------|-------------------|-----------------|---------------------|--|------------------------------------|------------------------------------|
| MSW Landfill Total | 12,173,998.51 | 180,253.34 | 11,654,688.11 | 62,211.59 | 28,597.51 | 0.00 | 104,464.55 | 324,927.65 | 66,048.00 | 130,339.09 | 40,618.34 | 23,593.30 |
| Transfer Station Total | 3,040,063.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 78,545.43 | 2,827.22 | 71,811.99 | 2,882,154.29 | 5,703.70 | 6,885.71 |
| Material Recovery Facility Total | 2,556,926.61 | 0.00 | 0.00 | 241,917.59 | 0.00 | 0.00 | 18,321.43 | 20,651.69 | 459,025.37 | 1,865,821.93 | 322,917.16 | 273,573.03 |
| Waste to Energy Incinerator Total | 2,319,838.71 | 0.00 | 0.00 | 0.00 | 0.00 | 2,236,485.71 | 0.00 | 0.00 | 220,080.30 | 461,344.62 | 14,429.00 | 16,734.00 |
| CDD Landfill Total | 1,932,114.23 | 0.00 | 1,755,998.46 | 109,086.80 | 0.00 | 0.00 | 24,673.00 | 0.00 | 40,289.08 | 1,991.69 | 320,440.79 | 320,515.99 |
| Non-Captive Industrial Landfill Total | 263,636.97 | 0.00 | 257,408.25 | 0.00 | 0.00 | 0.00 | 4,794.10 | 0.00 | 363.18 | 0.00 | 6,032.96 | 7,104.40 |
| Compost Facility Total | 320,607.82 | 0.00 | 0.00 | 78,723.00 | 178,735.37 | 0.00 | 68,455.13 | 2,500.00 | 0.00 | 16,093.94 | 157,965.15 | 134,065.53 |
| RMW Facility Total | 11,567.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11,570.58 | 3.00 | 0.00 |
| 2020 All Facilities Total | 22,505,326.75 | 180,253.34 | 13,668,094.82 | 491,938.98 | 207,332.88 | 2,236,485.71 | 299,253.64 | 350,906.56 | 846,322.52 | 5,267,183.96 | 868,110.10 | 782,471.96 |

Table 16 – List of Reporting Compost Facilities – 2020

| | Permit | Facility Name | Region |
|----|--------|--|--------|
| 1 | PBR010 | Danville City of - Yard Waste Composting Facility | BRRO |
| 2 | PBR013 | VPPSA -Compost Facility | TRO |
| 3 | PBR030 | Prince William County - Balls Ford Yard Waste | NRO |
| 4 | PBR096 | Newport News City - Yard Waste Compost Fac No 1 | TRO |
| 5 | PBR125 | Middle Peninsula Landfill and Recycling Facility | PRO |
| 6 | PBR141 | Loudoun Composting | NRO |
| 7 | PBR175 | DOC Powhatan Correctional Center | PRO |
| 8 | PBR181 | Watkins Nurseries Inc | PRO |
| 9 | PBR512 | Hanover County - 301 Solid Waste Facility | PRO |
| 10 | PBR525 | Bristol Integrated Solid Waste Management Facility | SWRO |
| 11 | PBR589 | Black Bear Composting | VRO |
| 12 | PBR597 | Commonwealth Compost and Recycling Services Inc | SWRO |
| 13 | PBR616 | Commonwealth Recycled Aggregates Inc | NRO |
| 14 | PBR632 | Panorama Paydirt | VRO |
| 15 | SWP601 | Royal Oak Farm Solid Waste Composting Facility | BRRO |

Table 17 – List of Reporting RMW Facilities – 2020

| | Permit | Facility Name | Region |
|---|--------|--|--------|
| 1 | PBR143 | Curtis Bay Medical Waste Services VA LLC - Roanoke | BRRO |
| 2 | PBR517 | Stericycle Chesterfield RMW Transfer Station | PRO |
| 3 | PBR606 | Daniels Sharpsmart RMW Transfer Station | PRO |
| 4 | PBR617 | Curtis Bay Medical Waste Services Virginia LLC | PRO |
| 5 | PBR624 | Agape Pet Services of Virginia LLC | PRO |
| 6 | PBR634 | Curtis Bay Medical Waste Services - Norfolk | TRO |

Table 18 - Methods of Solid Waste Management (in Tons) - 2020

| Methods of Solid Waste Management | 2020 Tons | Percentage |
|-----------------------------------|---------------|------------|
| Landfilled Onsite | 13,668,094.82 | 72.38% |
| Incinerated Onsite | 2,236,485.71 | 11.84% |
| Sent Offsite to be Recycled | 846,322.52 | 4.48% |
| Stored Onsite End of Year | 782,471.96 | 4.14% |
| Recycled Onsite | 491,938.98 | 2.61% |
| Other Onsite | 350,906.56 | 1.86% |
| Mulched Onsite | 299,253.64 | 1.58% |
| Composted Onsite | 207,332.88 | 1.10% |
| Total | 18,882,807.07 | 100.00% |

Note: The basis for determining these percentages is the sum for all methods of waste management (recycled, composted, landfilled, etc.) in Table 1, with the exception of: (1) waste stored onsite at the beginning of the year (which is similar to waste received) and (2) waste that was sent offsite for treatment, storage or disposal (i.e., waste that was simply transferred to another facility for ultimate management). Accounting for those two exceptions, the basis for these percentages is 18,882,807.07 tons. Facilities that mine landfill materials report how much material was mined and how it was managed.

Table 19 - Composition of the Solid Waste Stream in Tons - 2020

| Waste Type | 2020 Tons | Percentage | | |
|--------------------------------|---------------|------------|--|--|
| Municipal Solid Waste | 14,321,452.83 | 63.64% | | |
| Construction/Demolition/Debris | 4,339,878.76 | 19.28% | | |
| Industrial Waste | 1,357,465.02 | 6.03% | | |
| Other Waste | 722,840.04 | 3.21% | | |
| Incineration Ash | 595,245.10 | 2.64% | | |
| Vegetative/Yard Waste | 461,579.76 | 2.05% | | |
| Petroleum Contaminated Soil | 330,491.43 | 1.47% | | |
| Sludge | 226,678.46 | 1.01% | | |
| Tires | 100,220.56 | 0.45% | | |
| White Goods | 29,454.99 | 0.13% | | |
| Regulated Medical Waste | 11,567.58 | 0.05% | | |
| Friable Asbestos | 8,452.22 | 0.04% | | |
| Total | 22,505,326.75 | 100.00% | | |

Table 20 – Tons Recycled or Diverted from Solid Waste Facilities – 2020

| Annual Reporting Period 2020 for Virginia Jurisdictions | | | | | | | | | | |
|---|-------------------------|------------------------------|-----------------|------------------|------------|------------|--|--|--|--|
| Waste Type | Total Waste Received | Tons Recycled or Diverted | Recycled Onsite | Recycled Offsite | Composted | Mulched | | | | |
| Municipal Solid Waste | 10,251,111.06 | 128,951.01 | 12,502.30 | 115,238.01 | 1,210.70 | 0.00 | | | | |
| Construction/Demolition/Debris | 3,836,864.27 | 504,894.14 | 386,994.67 | 84,045.58 | 0.00 | 33,853.89 | | | | |
| Industrial Waste | 712,890.67 | 28,968.34 | 0.00 | 6,435.34 | 22,533.00 | 0.00 | | | | |
| Other Waste | 544,484.37 | 317,139.71 | 43,455.20 | 254,182.02 | 19,502.49 | 0.00 | | | | |
| Vegetative/Yard Waste | 461,524.90 | 429,092.79 | 3,720.16 | 31,476.37 | 128,525.51 | 265,370.75 | | | | |
| Incineration Ash | 434,059.62 | 156,784.90 | 0.00 | 156,784.90 | 0.00 | 0.00 | | | | |
| Petroleum Contaminated Soil | 240,119.39 | 56,805.00 | 0.00 | 56,805.00 | 0.00 | 0.00 | | | | |
| Sludge | 203,417.40 | 18,854.67 | 0.00 | 0.00 | 18,854.67 | 0.00 | | | | |
| Tires | 100,204.26 | 82,245.24 | 44,095.73 | 38,149.51 | 0.00 | 0.00 | | | | |
| White Goods | 29,454.99 | 29,338.05 | 919.82 | 28,418.23 | 0.00 | 0.00 | | | | |
| Regulated Medical Waste | 10,418.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Friable Asbestos | 4,922.93 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Total | 16,829,472.76 | 1,753,073.84 | 491,687.88 | 771,534.96 | 190,626.37 | 299,224.64 | | | | |

| Annual Reporting Period 2020 for Out-of-State Jurisdictions | | | | | | | | | | |
|---|-------------------------|------------------------------|-----------------|------------------|-----------|---------|--|--|--|--|
| Waste Type | Total Waste Received | Tons Recycled or Diverted | Recycled Onsite | Recycled Offsite | Composted | Mulched | | | | |
| Municipal Solid Waste | 4,070,341.77 | 248.74 | 86.10 | 162.64 | 0.00 | 0.00 | | | | |
| Industrial Waste | 644,574.35 | 16,787.50 | 0.00 | 86.50 | 16,701.00 | 0.00 | | | | |
| Construction/Demolition/Debris | 503,014.49 | 562.97 | 165.00 | 368.97 | 0.00 | 29.00 | | | | |
| Other Waste | 178,355.67 | 18,617.72 | 0.00 | 18,617.72 | 0.00 | 0.00 | | | | |
| Incineration Ash | 161,185.48 | 55,538.00 | 0.00 | 55,538.00 | 0.00 | 0.00 | | | | |
| Petroleum Contaminated Soil | 90,372.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Sludge | 23,261.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Friable Asbestos | 3,529.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Regulated Medical Waste | 1,148.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Vegetative/Yard Waste | 54.86 | 5.51 | 0.00 | 0.00 | 5.51 | 0.00 | | | | |
| Tires | 16.30 | 13.74 | 0.00 | 13.74 | 0.00 | 0.00 | | | | |
| Total | 5,675,853.99 | 91,774.18 | 251.10 | 74,787.57 | 16,706.51 | 29.00 | | | | |

Figure 1 – Total Solid Waste Received from 2012 through 2020

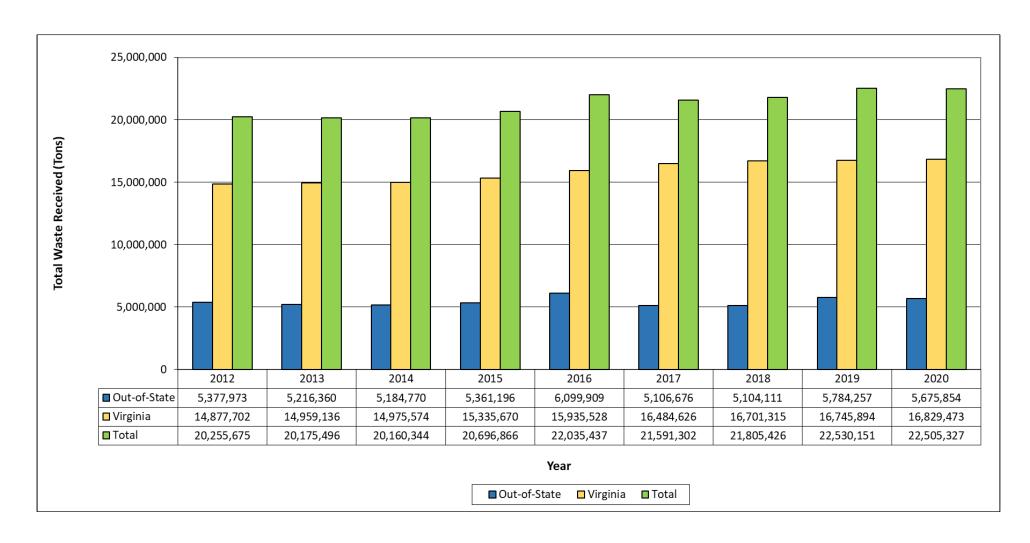
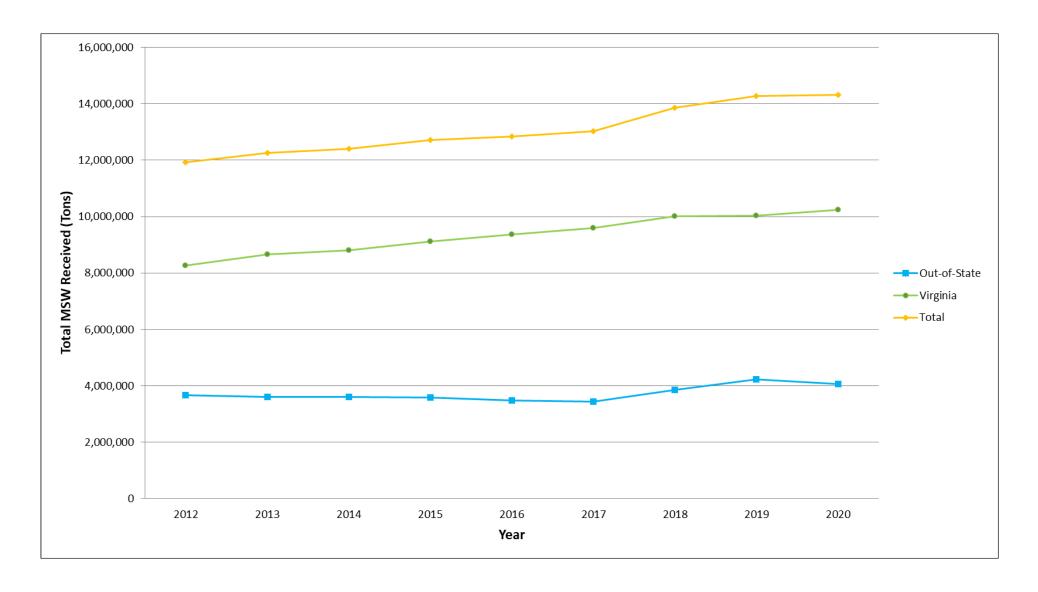


Figure 2 – Municipal Solid Waste Received from 2012 through 2020



Attachment 1 – SWIA Reporting Table (Form DEQ 50-25)

SOLID WASTE INFORMATION AND ASSESSMENT PROGRAM REPORTING TABLE - FORM DEQ 50-25 (Revised 12/17/2018)

| | | | | | | | | | | | • | | |
|---|--|--------------------------|-----------------------------|--|---|---|-----------------|----------------|---------------|-----------|---------------------------------|--|-------------------------------|
| 1 | 1 Facility Name | | | | | | | | | | | | |
| 2 | Permit Number 3 Date Submitted to DEQ | | | | 4 Annual Reporting Period | | | | | | | | |
| 5 | Preparer's First Name Middle Initial | | | Last Name 6 Telephone | | | | | | | | | |
| 7 | Preparer's E-mail Address | | | | | | | | | | | | |
| | Has there been a change to the Annual Fee Billing Contact, Address or Telephone Number? □Yes □ N o | | | | | | | | | | | | |
| ١, | Contact First Name Last Name | | | | | Contact Phone | | | | | | | |
| 8 | Address | | | | | E-Mail | | | | | | | |
| City | | | | State Z | | | Zip Code | | | | | | |
| 9A and 9B Landfills only 9A Remaining Per | | | Permitted Capacity Cubic 9B | | | Expected Remaining Years Permitted Life | | | Years | | | | |
| Does facility use active scales? □ Yes or □ N | | | | No | Landfills not using active scales - enter the total amount landfilled in cubic yards (sum of all jurisdictions) | | | | | | | | |
| 11 | Originating Juri | | | | | 11A State | ment of Eco | nomic Bene | fits submitte | d? □Yes o | or 🗆 No | | |
| 12 | Facilities land | | ineration as | 11A Statement of Economic Benefits submitted? □Yes or □ No Sh Use the supplemental form to provide the facility from which ash was received and the amount. | | | | | | | | | |
| | | Waste amo | | | | | Cubic Yar | | | | | | |
| | | Total | | | | | | | | Sent Off- | site to be: | Stored | On-site |
| | | Amount of | Mined | On-site Management of Waste | | | | | | (i) | | (j) | |
| Waste Type | | Waste Received (a) | Materials (b) | Landfilled (c) | Recycled (d) | Composted (e) | Incinerated (f) | Mulched (g) | Other (h) | Recycled | Treated, Stored, Disposed | Beginning of Reporting Period | End of Reporting Period |
| 13 | Municipal Solid Waste | | | | | | | | | | | | |
| 14 | Construction/ Demolition/Debris | | | | | | | | | | | | |
| 15 | Industrial Waste | | | | | | | | | | | | |
| 16 | Regulated Medical Waste | | | | | | | | | | | | |
| 17 | Vegetative/Yard Waste | | | | | | | | | | | | |
| 18 | Incineration Ash | | | | | | | | | | | | |
| 19 | Sludge | | | | | | | | | | | | |
| 20 | Tires | | | | | | | | | | | | |
| 21 | White Goods | | | | | | | | | | | | |
| 22 | Friable Asbestos | | | | | | | | | | | | |
| 23 | Petroleum Contaminated Soil | | | | | | | | | | | | |
| 24 | Other Wastes (specify) | | | | | | | | | | | | |
| 25 | Total | | | | | | | | | | | | |
| | Facility Comments | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Complete a separate form for each jurisdiction.

See the instructions for completing Form DEQ 50-25. A separate form is provided for the optional Statement of Economic Benefits.

SUPPLEMENTAL SOLID WASTE INFORMATION AND ASSESSMENT PROGRAM REPORTING TABLE - FORM DEQ 50-25

Only those facilities that landfill Virginia incineration ash provide this information.

| Permit Number | Annual Reporting Period | | | | | |
|---|---------------------------|---------------|--|--|--|--|
| Facilities landfilling VA incineration ash: | VA ash amount measured in | | | | | |
| Received from Permit No., Facility Name | □ Tons | □ Cubic Yards | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| Facility Comme | ents | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Facilities should use the same units of measure (Cubic Yards or Tons) for Rows 12 - 24. Facilities that do not landfill VA incineration ash do not complete this supplemental form. See the instructions for completing Form DEQ 50-25. | | | | | | |